

## ABSTRACT OF THE DISCLOSURE

A plasma processing apparatus includes a processing chamber, a sample bench in the processing chamber mounting a wafer thereon, a plate having a plurality of through holes including discharge holes through which a processing gas flows into the processing chamber, the plate being disposed in an upper portion of the processing chamber, and a member in the upper portion of the processing chamber and provided with the plate on the side thereof facing the plasma. A light receiving unit is provided having an optical transmitter for transmitting therethrough a light from inside of the processing chamber having passed the through holes formed in the plate. The light receiving unit is attached to the member, and an end face of the optical transmitter is opposed to a back of the plate and the through holes so as to be in contact therewith or spaced therefrom by a minute gap.